

BIODIVERSITY INVESTMENT AREAS: Ranking Critical Areas in the Great Lakes Basin

(full report found on your *State of the Great
Lakes 2001* CD; summary report at
www.binational.net)

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**Biodiversity Investment Areas
are natural areas having high
ecological value which warrant
exceptional attention to
protect them from
degradation.**

*from Land by the Lakes, a report for (SOLEC) State
of the Great Lakes Ecosystem Conference 1996*

www.epa.gov/glnpo/solec

Biodiversity Investment Areas (BIAs)

- Broad areas, not isolated sites
- Clusters of exceptional biodiversity values
- Coastal areas only at this time
- High potential for restoration as well as pristine

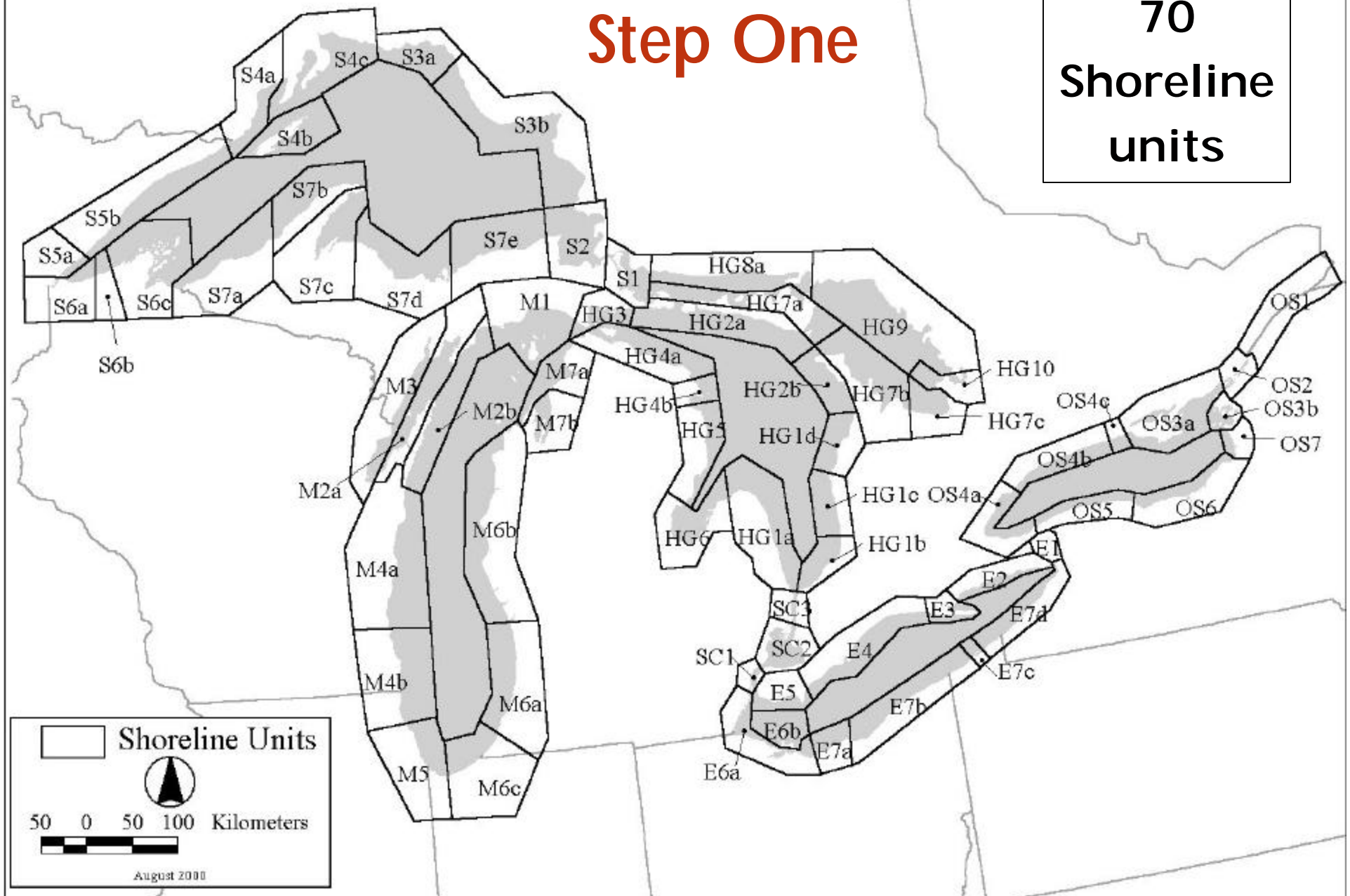
Why BIAs?

- Focus attention
- Engage citizens and agencies
- Great Lakes Water Quality Agreement goal
- International commitments
- Benchmarks for ecological indicators

Integration Process

Step One

70
Shoreline
units



Integration Process

Step Two

- Develop integrated over-arching criteria
- *Criterion 1: Species or communities of special interest*
- *Criterion 2: Diversity of habitats, communities and species*
- *Criterion 3: Productivity and integrity*

Integration Process

Step Three

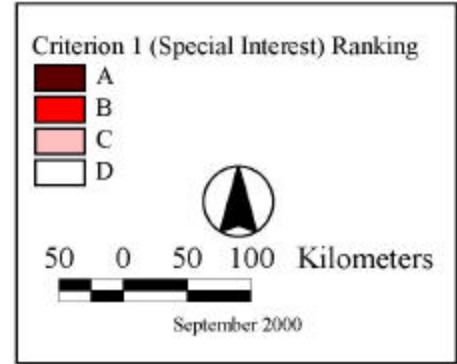
- Identify available data sets to assess each criterion
- 10 data sets used
- For each data set, compare relative values for each shoreline unit - adjust for shoreline length
- Compile to derive a relative rank for each criterion

Data sets for Criterion 1

Special communities/species

- Rare species and community occurrences
- High-quality habitat areas
- Coastal wetlands
- Important Bird Areas

Special Communities/Species

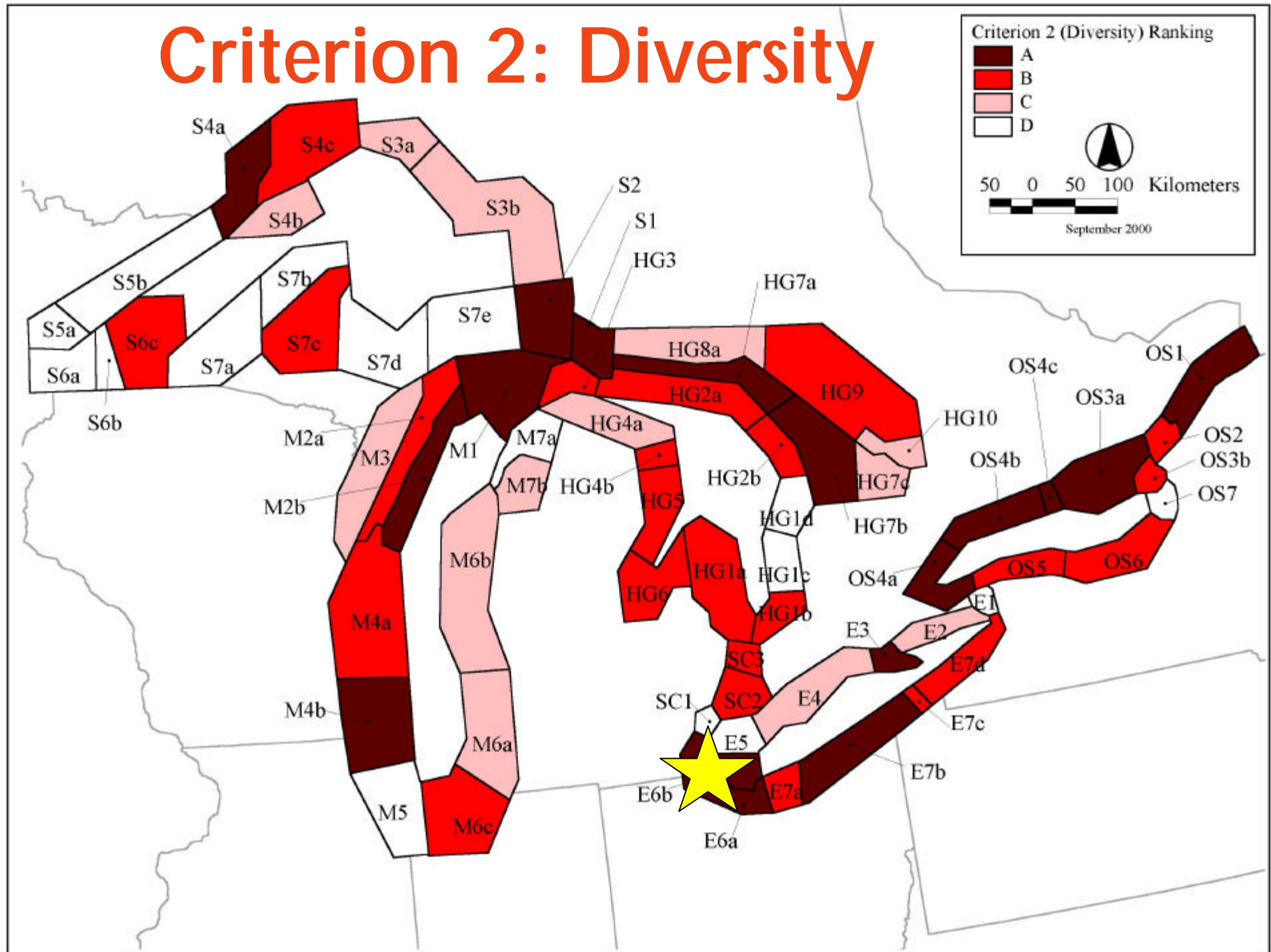


Data sets for Criterion 2

Diversity

- Shoreline substrate diversity
- Shoreline complexity
- Fish spawning and nursery areas

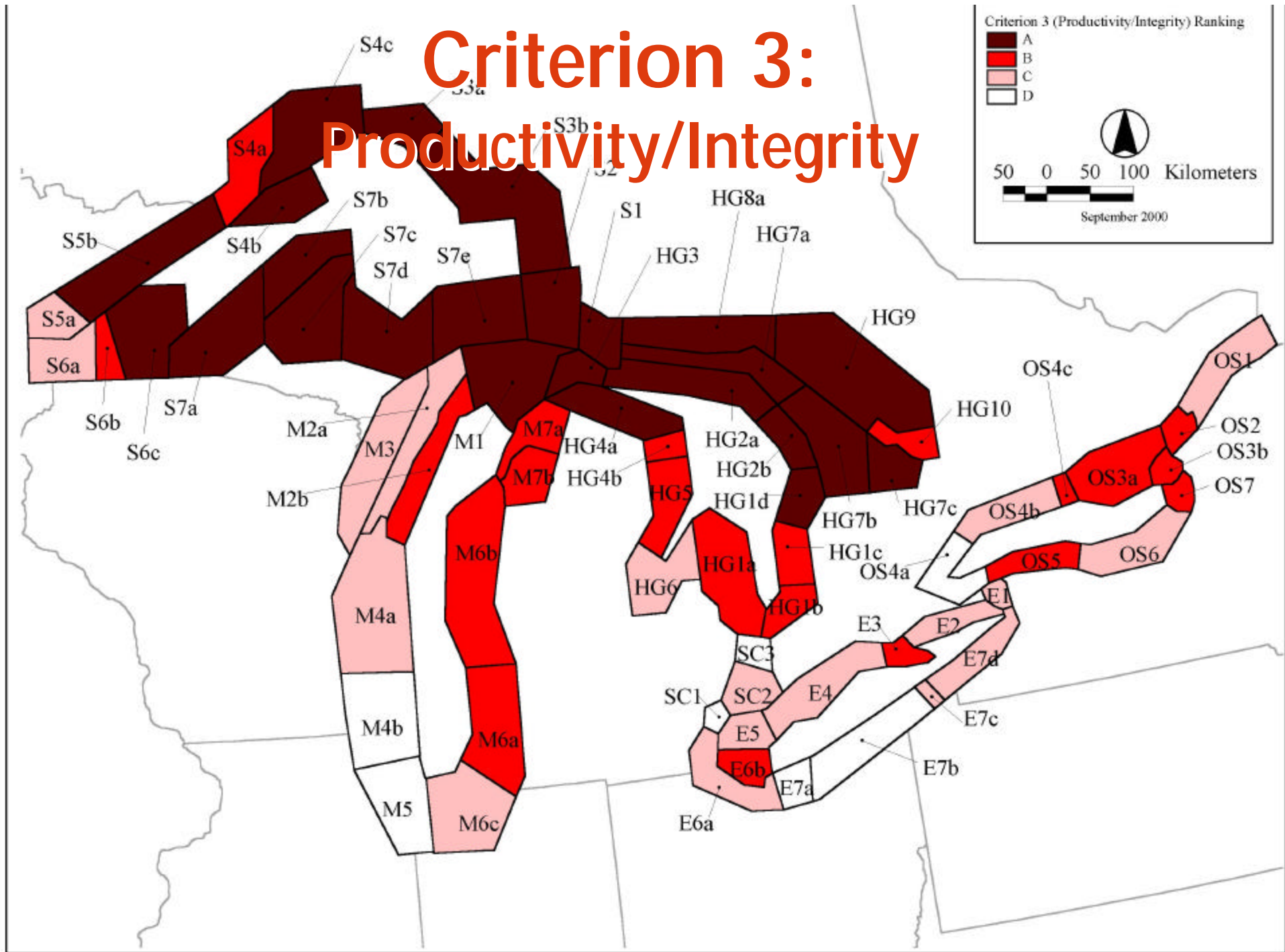
Criterion 2: Diversity

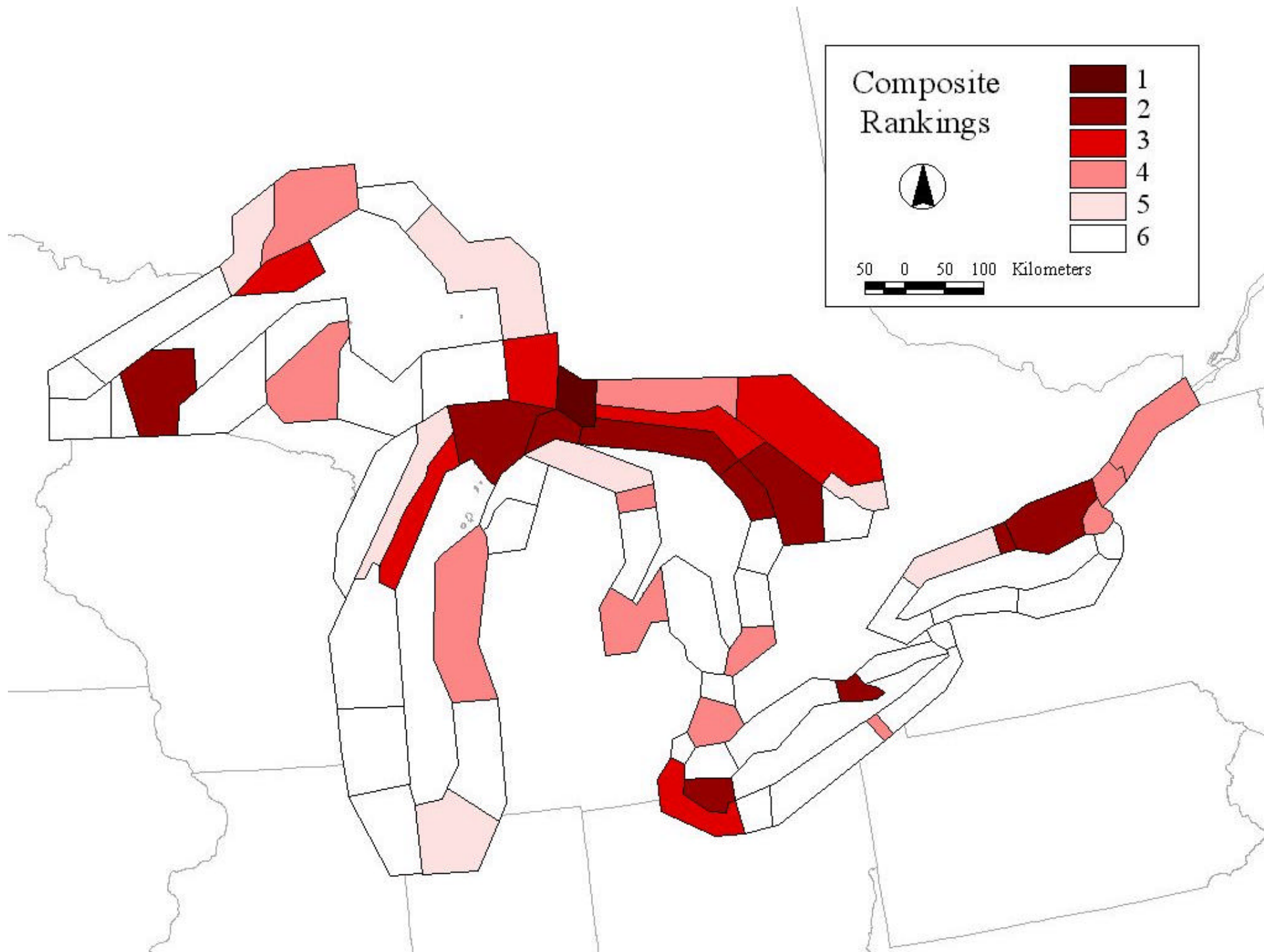


Data sets for Criterion 3 Productivity and Integrity

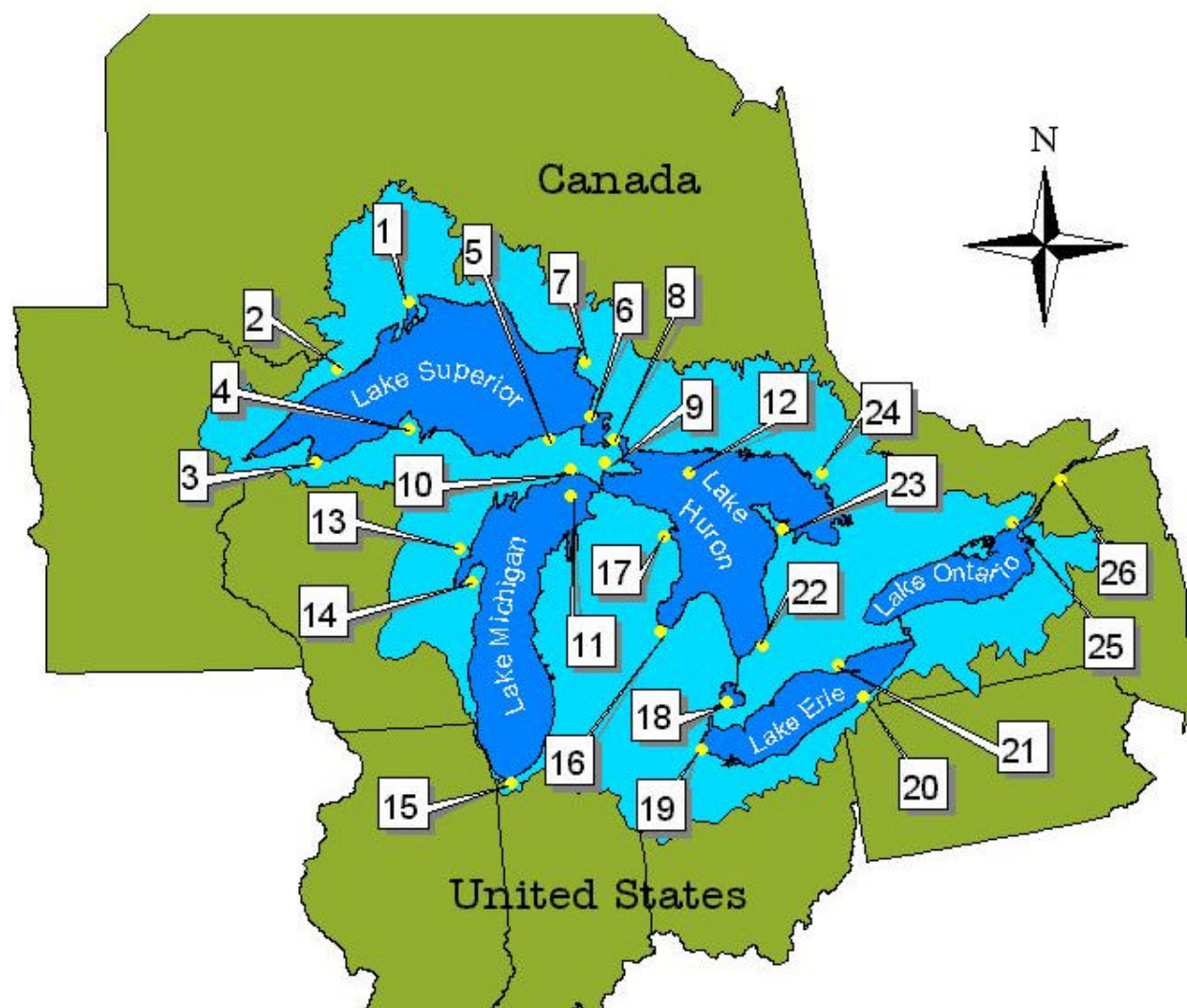
- Percentage of shoreline hardened
- Trophic degradation of nearshore waters
- Historic wetland loss

Criterion 3: Productivity/Integrity





Great Lakes Biodiversity Investment Areas



- 1 Superior North
- 2 Lake Superior Highlands
- 3 Great Chequamegon Region
- 4 Keweenaw Peninsula
- 5 Grand Sable Dunes
- 6 Batchawana Bay- Whitefish Bay
- 7 Eastern Lake Superior
- 8 St. Mary's River
- 9 Lake Huron North Channel
- 10 Mackinac- Lake Michigan North Shore
- 11 Michigan Islands
- 12 Mackinac- Manitoulin
- 13 Green Bay Western Shore
- 14 Door County Peninsula
- 15 Chicago Wilderness
- 16 Saginaw Bay
- 17 Misery Bay
- 18 Lake St. Clair/ Detroit River
- 19 Western Lake Erie
- 20 Presque Isle
- 21 Long Point
- 22 Kettle Point- Grand Bend
- 23 Bruce Peninsula
- 24 Eastern Georgian Bay
- 25 Eastern Lake Ontario
- 26 St. Lawrence River Corridor